OBJECTIVES: Hepatitis C virus (HCV) affects 3 to 4 million people in the United States and is a major cause of liver failure, hepatocellular carcinoma, and liver transplantation. Treatment of HCV has changed substantially in the last 2 years, with the introduction of new direct-acting antiviral therapies, which have been shown to reach cure rates higher than 95%. However this new class of therapies come at a high price, and has consequently been widely criticized. As such, it is important to understand the economic implications of their introduction into the market. The objective of the current study is to evaluate the cost-effectiveness of one of the most promising of these new therapies, sofosbuvir + ledipasir + ribavirin (SOF+LDV+R), as compared to the two previous standard of care treatment options for treatment naïve genotype 1 infected HCV patients. **METHODS:** Cost-effectiveness analysis using a Markov model of the natural disease progression of HCV infection and impact of treatment. We use a simulated 20 year model of a hypothetical cohort of 1000 patients to assess the cost-effectiveness of sofosbuvir + ledipasvir + ribavirin (SOF+LDV+R), boceprevir + pegylated interferon + ribavirin (BOC+P+R), and telaprevir + pegylated interferon + ribavirin (TVR+P+R). **RESULTS:** Over the 20-year time horizon, no treatment resulted in 9.76 QALYs and a total discounted cost of $41,434, while BOC+P+R resulted in 11.06 and $88,162, TVR+P+R in 11.08 and $92,150 and SOF+LDV+R in 11.79 and $74,477, respectively. That is, our analysis showed that BOC+P+R and TVR+P+R were strongly dominated, with SOF+LDV+R being the most cost-effective therapy. **CONCLUSIONS:** Despite the high price of SOF+LDV+R, this new therapy not only yields higher QALYs, but actually costs less than the previous standard of care treatments for treatment naïve genotype 1 HCV patients. These results have important economic and policy implications for the treatment of hepatitis C.

PIN66

COST-EFFECTIVENESS ANALYSIS OF ANIDULAFUNGIN IN THE TREATMENT OF CANDIDEMIA IN CHILE

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OBJECTIVES: Candidemia incidence in Chile has been estimated around 0.33 (0.21–0.47) per 1,000 admissions. The aim of this analysis is to assess the cost-effectiveness of anidulafungin compared with currently licensed antifungal agents in the treatment of confirmed infection of candidemia or invasive candidiasis in Chile. **METHODS:** The analysis was made from third payer perspective; the model timeframe was within a 6-week inpatient follow-up period with an extrapolation to lifetime for those surviving the 6-week period. Non-neutropenic patients were assumed. A tree-decision model was used to estimate potential treatment costs of anidulafungin vs comparator agents. Clinical success, mortality and adverse events rates were taken from international literature. Drug costs were taken from local institutional report and nephrotoxicity cost from official document, considering hemodialysis as required procedure. Comparators were: anidulafungin (loading dose 200mg/day, maintenance 100mg/day), caspofungin (loading dose 70mg/day, maintenance 50mg/day), micafungin (100mg/day), fluconazole (400mg/day), voriconazole (loading dose 6mg/kg/twice daily, maintenance 200mg twice daily or 4mg/kg twice daily), conventional amphotericin B [CAMB] (1 mg/kg), and liposomal amphotericin B [LAMB] (3mg/kg/day). It was considered an average patient weight of 76.4 kg (SD 25.5kg). Results are expressed as incremental cost-effectiveness ratio (ICER) US$ per life year gained (LYG) in 2014 US$ (exchange rate US$1=CLP$600). **RESULTS:** Total costs (drugs and hospital stay) associated with the treatment were: CAMB US$18,664; fluconazole US$15,327; micafungin US$17,210; voriconazole US$17,310; anidulafungin US$17,941; caspofungin US$18,619; LAMB US$24,794; number of life years gained were: 6.30, 6.52, 5.55, 6.77, 7.23, 6.03 and 5.47, respectively. Caspofungin, Amphotericin B and LAMB were dominated by anidulafungin; ICER of anidulafungin compared to fluconazole, micafungin and voriconazole was US$3,729; US$436 and US$1,371, respectively. **CONCLUSIONS:** For the analyzed scenario with threshold per life-year gained over US$3,729, anidulafungin is a cost-effectiveness therapy compared to micafungin, fluconazole, voriconazole and generates savings compared to CAMB, caspofungin and LAMB for candidemia in Chile

PIN67

MODELING THE COST-EFFECTIVENESS OF NOVEL DIRECT ACTING ANTIVIRAL (DAA) TREATMENTS IN PATIENTS CO-INFECTED WITH HEPATITIS C VIRUS (HCV) AND HUMAN IMMUNODEFICIENCY VIRUS (HIV)

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OBJECTIVES: Compared to infection with HCV alone, patients co-infected with HIV have faster disease progression, increased mortality and reduced quality adjusted life expectancy (QALE). The objective of this study was to compare the cost-effectiveness of novel DAA regimens for HCV genotypes (GTs) 1 and 3 (which predominate in the UK) in HCV/HIV co-infected patients. **METHODS:** A published and validated lifetime HCV Markov model was used to model a cohort of patients (mean age 50 years; 50% female) evenly distributed across fibrosis stages F0–F4, using HIV co-infection specific transition rates. Presented is a comparison of 12 weeks of daclatasvir+sofosbuvir (DCV+SOF) to 24 weeks of sofosbuvir+ribavirin (SOF+RBV) in treatment-naïve patients. Clinical inputs were obtained from pivotal trials: ALLY-2 for DCV+SOF (GT1 SVR: 80/83 [96.39%]; GT3 SVR: 6/6 [100%]) and PHOTON-1/2 for SOF+RBV (GT1 SVR: 182/226 [80.53%]; GT3 SVR: 52/57 [91.23%]). Weekly costs were DCV=£2,043.15, SOF=£2,915.24 and RBV=£66.95. Published disease state costs (UK 2013) and health utility values were used; both costs and benefits were discounted at 3.5%. **RESULTS:** In GT1 patients, the model predicted that discounted life expectancy (LE) and QALE would increase by 0.52 and 0.69 in DCV+SOF (LE=18.90, QALE=12.37) compared to SOF+RBV (LE=18.37, QALE=11.68), respectively. Overall predicted costs were lower with DCV+SOF (£316,716) versus SOF+RBV (£334,487). In GT3 patients, the model predicted that discounted LE and QALE would increase by 0.36 and 0.44 in DCV+SOF (LE=19.02, QALE=12.52) compared to SOF+RBV (LE=18.66, QALE=12.08), respectively. In GT3, overall predicted costs were also lower with DCV+SOF (£315,416) compared to SOF+RBV (£330,737). **CONCLUSIONS:** In those co-infected with HIV and GT1 or 3 HCV, 12 weeks of treatment with DCV+SOF was predicted to be dominant (increased QALE with decreased costs) compared to 24 weeks of SOF+RBV.

PIN68

ESTIMATING THE COST-EFFECTIVENESS OF DACLATASVIR REGIMENS FOR PATIENTS WITH ADVANCED CHRONIC HEPATITIS C IN THE UK

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OBJECTIVES: The availability of effective treatment for chronic hepatitis C patients with advanced disease is an area of unmet medical need. The objective of this study was to assess the cost-effectiveness of daclatasvir+sofosbuvir (DCV+SOF) for the treatment of hepatitis C virus (HCV) genotypes (GT) 1, 3 and 4 in patients with advanced disease (METAVIR score ≥ F3) compared to standard of care. **METHODS:** DCV+SOF was compared to telaprevir+pegylated interferon-alfa+ribavirin (TVR+PR) and no treatment (NT) in GT1, and pegylated interferon-alfa+ribavirin (PR) and NT in GT3 and GT4. A published Markov model (MONARCH) was used to simulate treatment in a cohort (mean age 50 years, 67% male) over a lifetime, using established disease transition rates, costs and health utilities. UK 2013 costs were employed, with costs and benefits discounted at 3.5%. Weekly treatment costs and sustained virologic response (SVR) rates used were: DCV: £2,038.13; SOF: £2,915.24 (DCV+SOF SVR: 100% GT1, GT3 and GT4); TVR: £1,866.50 (SVR: 62%); PR: £191.35 (SVR: 58% GT3; 45% GT4). **RESULTS:** In GT1, incremental costs were £15,282 and £20,798 and incremental QALYs were 1.95 and 4.88 compared to TVR+PR and NT, respectively. In GT3, incremental costs were £96,953 and £78,478, with QALY gains of 2.50 and 5.85 for PR and NT, respectively. In GT4, incremental costs were £26,966 and £18,636, with QALY gains of 3.07 and 5.36 for PR and NT, respectively. Predicted ICERs were: GT1, £7,830 versus TVR+PR, £4,263 versus NT; GT3, £38,815 versus PR, £13,416 versus NT; GT4, £8,782 versus PR, £3,477 versus NT. **CONCLUSIONS:** At conventional UK cost effectiveness thresholds, treatment with DCV+SOF is estimated to be cost-effective compared to standard of care and no treatment in GT1 and GT4 patients with advanced disease. In GT3, DCV+SOF is predicted to be cost-effective compared to NT.

PIN69

COMBINING DISEASE TRANSMISSION AND NUMBERS TREATED IN CONVENTIONAL COST-EFFECTIVENESS ANALYSES OF HEPATITIS C TREATMENT IN THE UK

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OBJECTIVES: The goal of hepatitis C virus (HCV) treatment is the attainment of sustained virologic response (SVR). As the predominant source of infection in the UK is associated with high-risk behaviour among people who inject drugs (PWID), reducing the infected population via treatment may prevent future infections. This study evaluated the health economic impact of two treatment regimens, daclatasvir+sofosbuvir (DCV+SOF) and telaprevir+pegylated interferon-alfa+ribavirin (TVR+PR), in a cohort of people with high transmission risk, when accounting for future infections avoided. **METHODS:** A combined dynamic HCV transmission and published disease progression model (MONARCH) was populated with published UK data for PWID. Future costs, life years and quality-adjusted life-years (QALYs) were discounted at 3.5%. A prevalence parameter amongst PWID of 25% was utilised and results presented per 1,000 patients. The impact of treating all (25/1000) or a proportion (8/1000) of patients with DCV+SOF or TVR+PR within a one-year period was evaluated. Published SVR rates of 95% and 59% were applied to DCV+SOF and TVR+PR, respectively. **RESULTS:** Ignoring future infections, DCV+SOF was associated with incremental per-patient costs of +£18,166 and incremental benefits of +1.4 QALYs and an incremental cost-effectiveness ratio (ICER) of £9,867 compared to TVR+PR. When considering reduced transmission, additional per-patient discounted cost savings of £8,803 and QALY gains of 1.42 were estimated, from 1,845 future infections and 328 related long-term complications avoided over the period 2015–2065 if all patients were treated. The associated ICER decreased from £9,867 to £2,869. Assuming 8/1000 PWID were treated, the ICER decreased from £9,867 to £8,156. **CONCLUSIONS:** Accounting for the impact of SVR on future disease transmission can significantly impact cost-effectiveness results in HCV. Factoring in the consequences of infections avoided is imperative when evaluating the cost-effectiveness of HCV treatment among groups at high risk of transmission, such as PWID.

PIN70

SYSTEMATIC REVIEW OF ECONOMIC EVALUATION STUDIES OF VACCINES IN CHINA

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OBJECTIVES: To systematically review economic evaluation studies of vaccination programs in China. **METHODS:** We did a computerized search of published full economic evaluations of Chinese vaccination programs (published prior to March 16, 2014) in major English and Chinese databases. **RESULTS:** Seventeen economic evaluations of 8 vaccines were identified, and Hepatitis B vaccine (29%) and 7-valent pneumococcal conjugate vaccine (18%) were the most studied. All studies were model based, but half of them used simple decision tree. 59% adopted a societal perspective. Eleven (65%) studies used a lifetime time horizon. 71% used the 3% discounting rate for base case analysis, and 24% either did not discount health outcomes or cost, or did not explicitly report the discounting rate. Effectiveness and cost data in 88% and 41%, respectively, were from literature alone. All 8 studies with